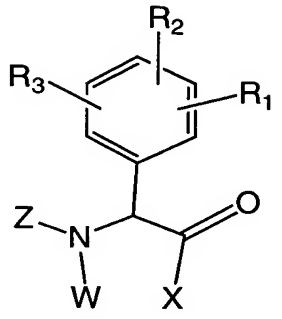
CLAIMS

We claim:

1. A compound according to formula (I),



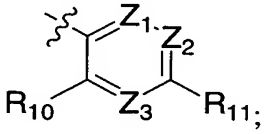
(I)

or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein:

X is $-NR_6S(O)_pR_{16}$;

W is hydrogen or $-(CR_7R_8)_q-W_1$;

W_1 is hydrogen or may be taken together with R_6 to define a bond so that X and W are joined together to form a five to seven membered heterocyclic ring;

Z is a 5-membered heteroaryl group optionally substituted with 1-3 R_9, a five to six membered heterocyclo or cycloalkyl group optionally substituted with 1-3 R_9, a 9 to 10 membered bicyclic aryl or heteroaryl optionally substituted with 1-3 substituents selected from R_9 and/or R_{10}, or  ;

Z_1, Z_2 and Z_3 are independently N or CR_9;

R_1, R_2 and R_3 are attached to any available carbon atom of the phenyl ring and are independently selected from hydrogen, halogen, cyano, nitro, C_{1-10}alkyl, C_{2-10}alkenyl, substituted C_{1-10}alkyl, substituted C_{2-10}alkenyl, $-C(=O)NR_{12}R_{13}$, $-OR_{12}$, $-CO_2R_{12}$, $-C(=O)R_{12}$, $-SR_{12}$, $-S(O)_tR_{15}$, $-NR_{12}R_{13}$, $-NR_{12}SO_2R_{15}$, $-NR_{14}SO_2NR_{12}R_{13}$, $-NR_{12}CO_2R_{13}$, $-NR_{12}C(=O)R_{13}$, $-NR_{14}C(=O)NR_{12}R_{13}$, $-SO_2NR_{12}R_{13}$, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_6 is hydrogen, C_{1-4}alkyl, NH_2, C_{1-4}alkylamino, hydroxy, or C_{1-4}alkoxy, or together with W_1 is a bond so that X and W join together to form a five to seven membered heterocyclic ring;

R_7 and R_8 are independently selected from hydrogen, $-OR_{18}$, $-NR_{18}R_{19}$, $-NR_{18}SO_2R_{20}$, alkyl, alkenyl, substituted alkyl, substituted alkenyl, halogen, haloalkyl, haloalkoxy, cyano, nitro, alkylthio, $-C(=O)H$, acyl, $-CO_2H$, alkoxycarbonyl, sulfonamido, sulfonyl, and phenyl in turn optionally substituted with 1-3 of halogen, cyano, haloalkyl, haloalkoxy, nitro, hydroxy, C_{1-4}alkyl, C_{1-4}hydroxyalkyl, C_{1-4}alkoxy, amino, $NH(C_{1-4}alkyl)$, $N(C_{1-4}alkyl)_2$, and C_{1-4}aminoalkyl;

R_9, R_{10} and R_{11} are independently selected from hydrogen, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, $-S(O)_uR_{21}$, $-NR_{22}SO_2R_{21}$, $-C(=O)NR_{22}R_{23}$, $-OR_{22}$, $-CO_2R_{22}$, $-C(=O)R_{22}$, $-SR_{22}$, $-NR_{22}R_{23}$, $-NR_{22}CO_2R_{23}$, $-NR_{22}C(=O)R_{23}$, $-NR_{22}C(=O)NR_{23}R_{24}$, $-SO_2NR_{22}R_{23}$, $-NR_{22}SO_2NR_{23}R_{24}$, $-C(=NR_{22})NR_{23}R_{24}$, five or six membered heterocyclo or heteroaryl, phenyl, and C_{3-7}cycloalkyl, provided that R_{11} is not $-C(=NR_{22})NR_{23}R_{24}$ when W or W_1 is hydrogen; wherein when R_9, R_{10} or R_{11} is selected from heterocyclo, heteroaryl, phenyl, and C_{3-7}cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C_{1-4}alkyl, C_{1-4}alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, and/or cyano;

R_{12}, R_{13}, R_{14}, R_{18}, R_{19}, R_{22} R_{23}, and R_{24} are independently selected from hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{15}, R_{20} and R_{21} are independently selected from alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{16} is alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, or heterocyclo;

p is 1 or 2;

q is 1, 2 or 3;

t is 1 or 2; and

u is 1 or 2;

provided that:

i) when Z is phenyl, pyridyl or pyridazinyl, R_9, R_{10} and/or R_{11} are other than cyano or $-C(=NR_{22})NR_{23}R_{24}$;

ii) when W is H or C_{1-4}alkyl, Z is other than aryl;

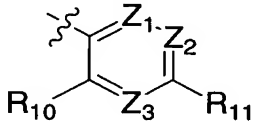
iii) when W is H, Z is other than C_{5-6}cycloalkyl, piperidinyl, tetrahydropyridinyl, 3-pyridyl, or 3-pyridyl *N*-oxide; or

iv) R_1, R_2, and R_3 are not all simultaneously hydrogen.

2. A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein:

X is $-NR_6S(O)_pR_{16}$;

W is hydrogen or $-(CH_2)_q$-H;

Z is a 5-membered heteroaryl group optionally substituted with 1-3 R_9, a five to six membered heterocyclo optionally substituted with 1-3 R_9, a 9 to 10 membered bicyclic heteroaryl optionally substituted with 1-3 substituents selected from R_9 and/or R_{10}, or  ;

Z_1, Z_2 and Z_3 are independently N or CR_9 and at least one of Z_1, Z_2 and Z_3 is N;

R_1, R_2 and R_3 are attached to any available carbon atom of the phenyl ring and are independently selected from hydrogen, halogen, cyano, nitro, C_{1-10}alkyl, C_{2-10}alkenyl, substituted C_{1-10}alkyl, substituted C_{2-10}alkenyl, $-C(=O)NR_{12}R_{13}$, $-OR_{12}$, $-CO_2R_{12}$, $-C(=O)R_{12}$, $-SR_{12}$, $-S(O)_tR_{15}$, $-NR_{12}R_{13}$, $-NR_{12}SO_2R_{15}$, $-NR_{14}SO_2NR_{12}R_{13}$, $-NR_{12}CO_2R_{13}$, $-NR_{12}C(=O)R_{13}$, $-NR_{14}C(=O)NR_{12}R_{13}$, $-SO_2NR_{12}R_{13}$, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_6 is hydrogen;

R_9, R_{10} and R_{11} are independently selected from hydrogen, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, $-S(O)_uR_{21}$, $-NR_{22}SO_2R_{21}$, $-C(=O)NR_{22}R_{23}$, $-OR_{22}$, $-CO_2R_{22}$, $-C(=O)R_{22}$, $-SR_{22}$, $-NR_{22}R_{23}$, $-NR_{22}CO_2R_{23}$, $-NR_{22}C(=O)R_{23}$, $-NR_{22}C(=O)NR_{23}R_{24}$, $-SO_2NR_{22}R_{23}$, $-NR_{22}SO_2NR_{23}R_{24}$, $-C(=NR_{22})NR_{23}R_{24}$, five or six membered heterocyclo or heteroaryl, phenyl, and C_{3-7}cycloalkyl, provided that R_{11} is not $-C(=NR_{22})NR_{23}R_{24}$; wherein when R_9, R_{10} or R_{11} is selected from heterocyclo, heteroaryl, phenyl, and C_{3-7}cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C_{1-4}alkyl, C_{1-4}alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, and/or cyano;

R_{12}, R_{13}, R_{14}, R_{18}, R_{19}, R_{22} R_{23}, and R_{24} are independently selected from hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{15}, R_{20} and R_{21} are independently selected from alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{16} is alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, or heterocyclo;

p is 1 or 2;

q is 1, 2 or 3;

t is 1 or 2; and

u is 1 or 2;

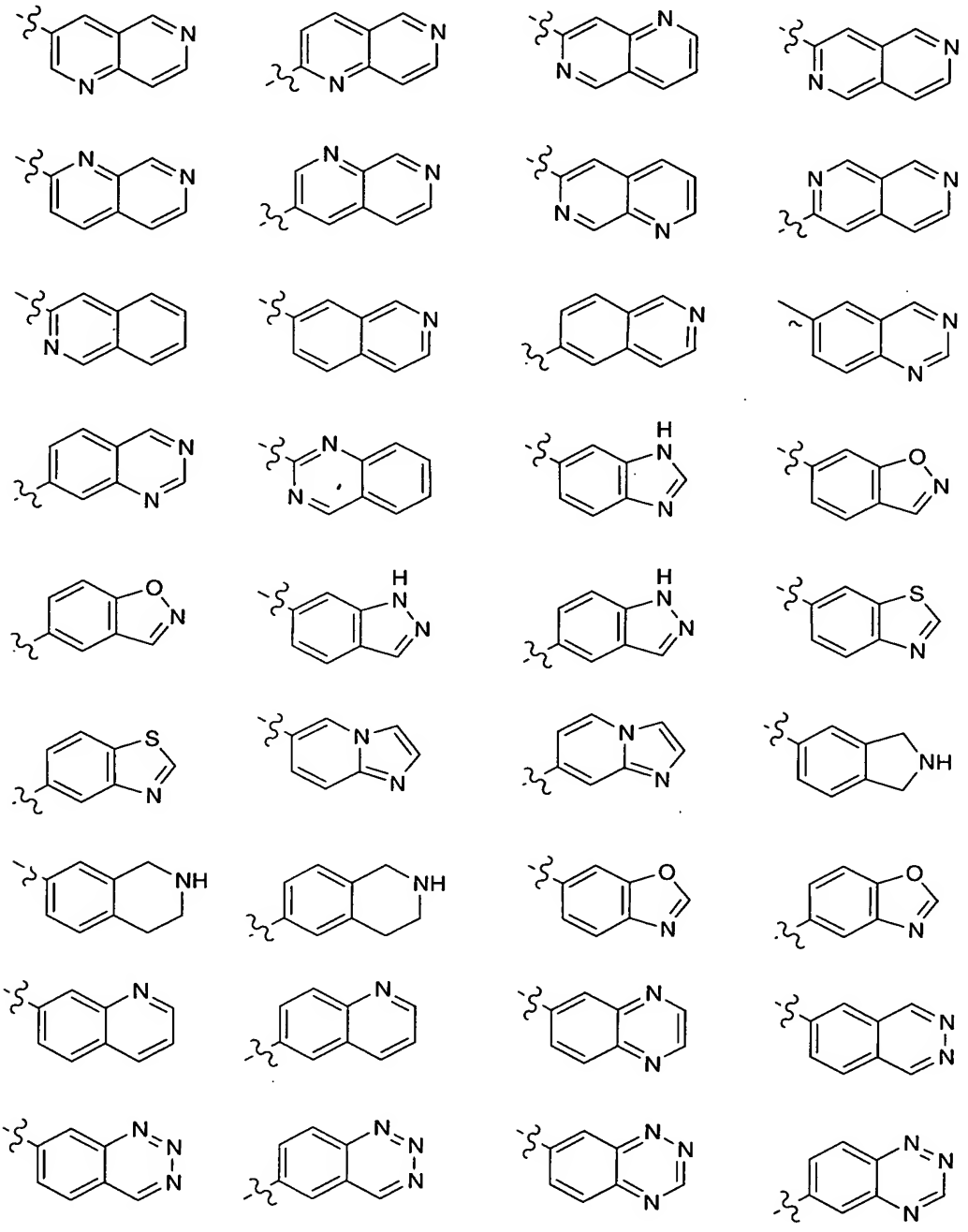
provided that:

i) when Z is pyridyl or pyridazinyl, R_9, R_{10} and/or R_{11} are other than cyano or $-C(=NR_{22})NR_{23}R_{24}$;

ii) when W is H, Z is other than piperidinyl, tetrahydropyridinyl, 3-pyridyl, or 3-pyridyl *N*-oxide; or

iii) R_1, R_2, and R_3 are not all simultaneously hydrogen.

3. A compound according to claim 2, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein Z is substituted by 0 to 3 R_9 and is selected from the group:



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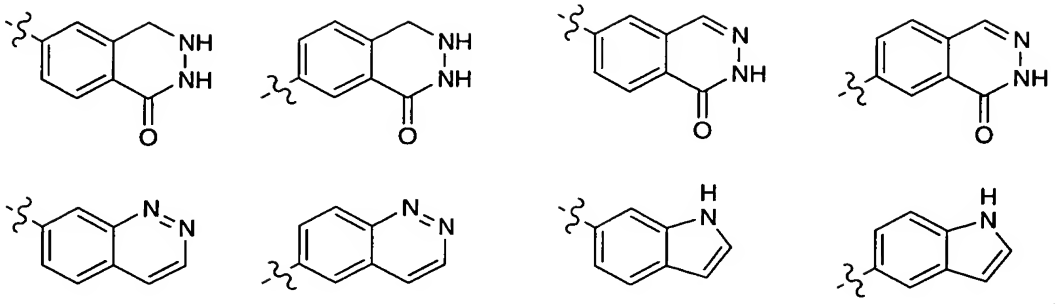
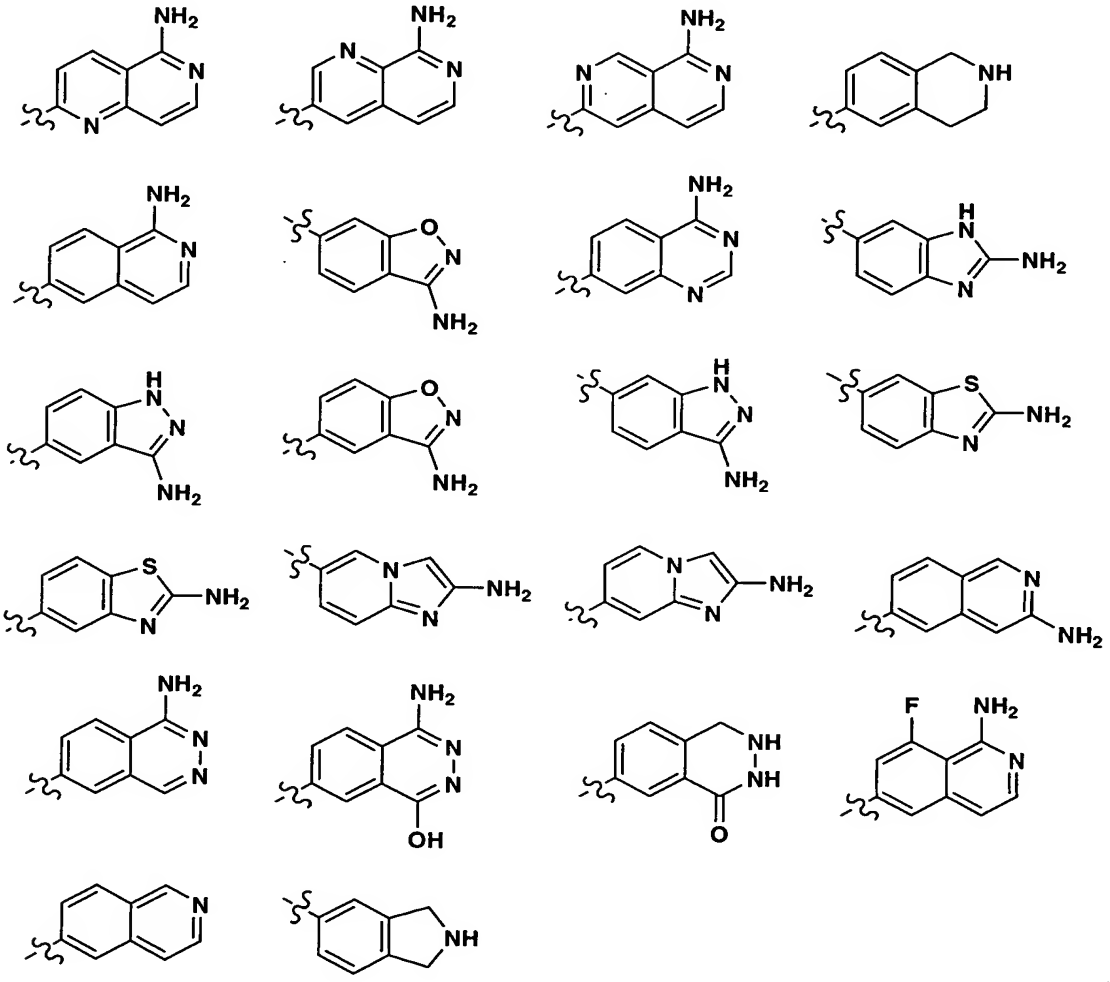
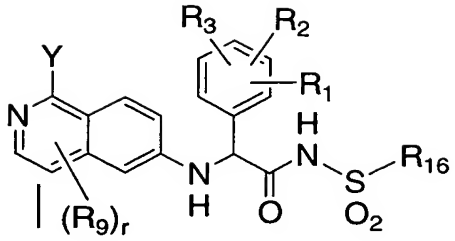


4. A compound according to claim 3, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein Z is substituted with 0-2 R_9 and selected from the group:



5. A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein the compound is of formula (Ia):



(Ia),

wherein:

Y is NH_2 or H;

R_1, R_2 and R_3 are attached to any available carbon atom of the phenyl ring and are independently selected from H, halogen, CN, NO_2, C_{1-6}alkyl, C_{2-6}alkenyl, substituted C_{1-6}alkyl, substituted C_{2-6}alkenyl, $-C(=O)NR_{12}R_{13}$, $-OR_{12}$, $-CO_2R_{12}$, $-C(=O)R_{12}$, $-SR_{12}$, $-S(O)_tR_{15}$, $-NR_{12}R_{13}$, $-NR_{12}SO_2R_{15}$, $-NR_{14}SO_2NR_{12}R_{13}$, $-NR_{12}CO_2R_{13}$, $-NR_{12}C(=O)R_{13}$, $-NR_{14}C(=O)NR_{12}R_{13}$. $-SO_2NR_{12}R_{13}$, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_9 is, independently at each occurrence, H, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, $-S(O)_uR_{21}$, $-NR_{22}SO_2R_{21}$, $-C(=O)NR_{22}R_{23}$, $-OR_{22}$, $-CO_2R_{22}$, $-C(=O)R_{22}$, $-SR_{22}$, $-NR_{22}R_{23}$, $-NR_{22}CO_2R_{23}$, $-NR_{22}C(=O)R_{23}$, $-NR_{22}C(=O)NR_{23}R_{24}$, $-SO_2NR_{22}R_{23}$, $-NR_{22}SO_2NR_{23}R_{24}$, five or six membered heterocyclo or heteroaryl, phenyl, or C_{3-7}cycloalkyl, provided that R_{11} is not $-C(=NR_{22})NR_{23}R_{24}$; wherein when R_9 is selected from heterocyclo, heteroaryl, phenyl, and C_{3-7}cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C_{1-4}alkyl, C_{1-4}alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, and/or cyano;

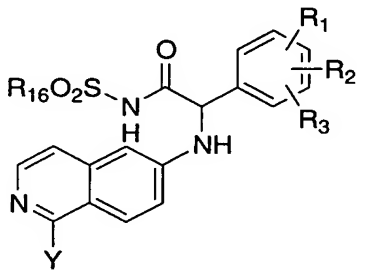
R_{16} is C_{1-6}alkyl substituted with 0-3 R_{25}, phenyl substituted 0-3 R_{25}, naphthyl substituted with 0-3 R_{25}, a 5-10 membered heteroaryl substituted with 0-3 R_{25} and selected from 1H-pyrazol-4-yl, 1H-pyrazol-4-yl, thiazol-5-yl, 2-naphthyl, quinolin-8-yl, benzo[1,2,5]thiadiazol-4-yl, 2,3-dihydro-benzo[1,4]dioxin-5-yl, or 1H-benzoimidazol-5-yl;

R_{25} is, independently at each occurrence, C_{1-4}alkyl, C_{1-4}alkoxy,

C_{1-4}hydroxyalkyl, C_{1-4}aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4}alkylamino, cyano, carboxy, nitro, phenyl, $-SO_2NR_{22}R_{23}$, or $-CO\ NR_{22}R_{23}$; and

r is 0 to 2.

6. A compound according to claim 5, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein the compound is of formula (Ib):



(Ib),

wherein:

Y is H or NH_2;

R_{16} is Me, Et, Pr, i-Pr, cyclo-Pr, Bu, i-Bu, t-Bu, phenyl, 2-Me-phenyl, 3-Me-phenyl, 4-Me-phenyl, 2-F-phenyl, 3-F-phenyl, 4-F-phenyl, 2-OH-phenyl, 3-OH-phenyl, 4-OH-phenyl, 2-OMe-phenyl, 3-OMe-phenyl, 4-OMe-phenyl, 2-CH_2OH-phenyl, 3-CH_2OH-phenyl, 4-CH_2OH-phenyl, 2-CO_2H-phenyl, 3-CO_2H-phenyl, 4-CO_2H-phenyl, 3-$CONH_2$-phenyl, 4-$CONH_2$-phenyl, 3-CO_2H-4-OH-phenyl, 3-SO_2NH_2-phenyl, 4-SO_2NH_2-phenyl, 2-CN-phenyl, 3-CN-phenyl, 4-CN-phenyl, 3-NO_2-phenyl, 4-NO_2-phenyl, 2-NH_2-phenyl, 3-NH_2-phenyl, 4-NH_2-phenyl, 3-CH_2NH_2-phenyl, 4-CH_2NH_2-phenyl, 4-(2-$CH_2CH_2NH_2$)-phenyl, 4-(2-*tert*-butyl cabamoyl-ethyl)-phenyl, benzyl, 5-Cl-1,3-diMe-1H-pyrazol-4-yl, 5-Me-1-phenyl-1H-pyrazol-4-yl, 2,4-diMe-thiazol-5-yl, 2-naphthyl, Quinolin-8-yl, Benzo[1,2,5]thiadiazol-4-yl, 2,3-dihydro-benzo[1,4]dioxin-5-yl, 2-amino-1H-benzoimidazol-5-yl, hydroxymethyl, hydroxyethyl, hydroxypropyl, aminomethyl, aminoethyl, aminopropyl, 2,2,2-trifluoroethyl, 3-SO_2NH_2-propyl, 3-$CONH_2$-propyl, 2-SO_2NH_2-ethyl, 2-$CONH_2$-ethyl, 4-SO_2NH_2-butyl, or 4-$CONH_2$-butyl.

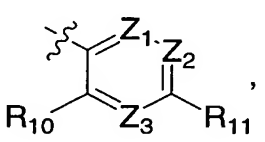
7. A compound according to claim 6, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein the compound is of formula (Ib) wherein R_1 and R_2 are C_{1-4}alkoxy.

8. A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein R_1 and R_2 are OR_{12}.

9. A compound according to claim 8, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein R_{12} is hydrogen, C_{1-6}alkyl, phenyl, or benzyl optionally substituted with 1-2 halogen, cyano, haloalkyl, haloalkoxy, nitro, hydroxy, C_{1-4}alkyl, C_{1-4}hydroxyalkyl, C_{1-4}alkoxy, amino, $NH(C_{1-4}alkyl)$, and/or $N(C_{1-4}alkyl)_2$.

10. A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein W is hydrogen.

11. A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein Z is selected from:



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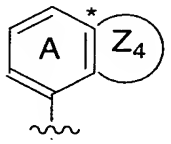

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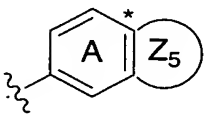

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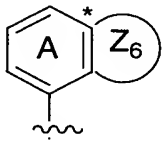

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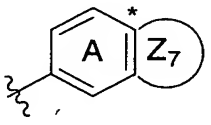

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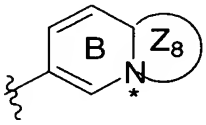
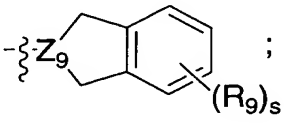
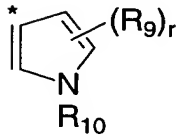


, and


;

Z_4 is fused to ring A comprising the common carbon atom C* and is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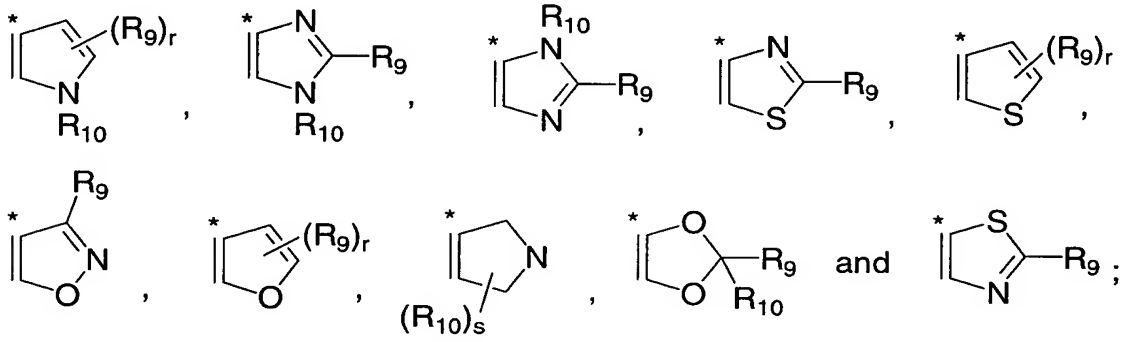
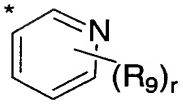
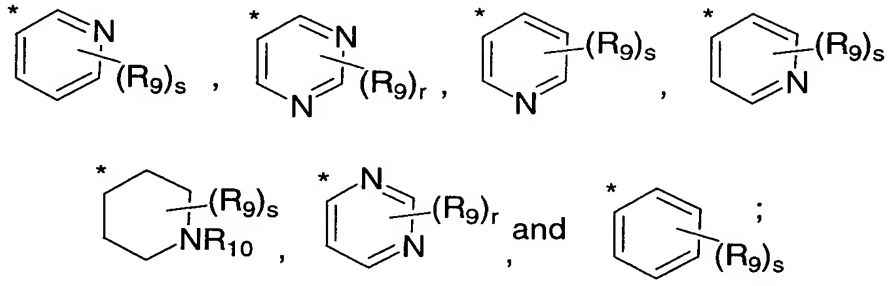
Z_5 is fused to ring A comprising the common carbon atom C* and is selected from:


;

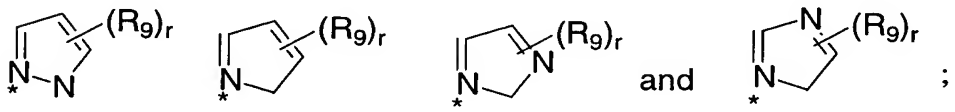
Z_6 is fused to ring A comprising the common carbon atom C* and is


;

Z_7 is fused to ring A comprising the common carbon atom C* and is selected from:


;

Z_8 is fused to ring B comprising the common nitrogen atom N* and is selected from

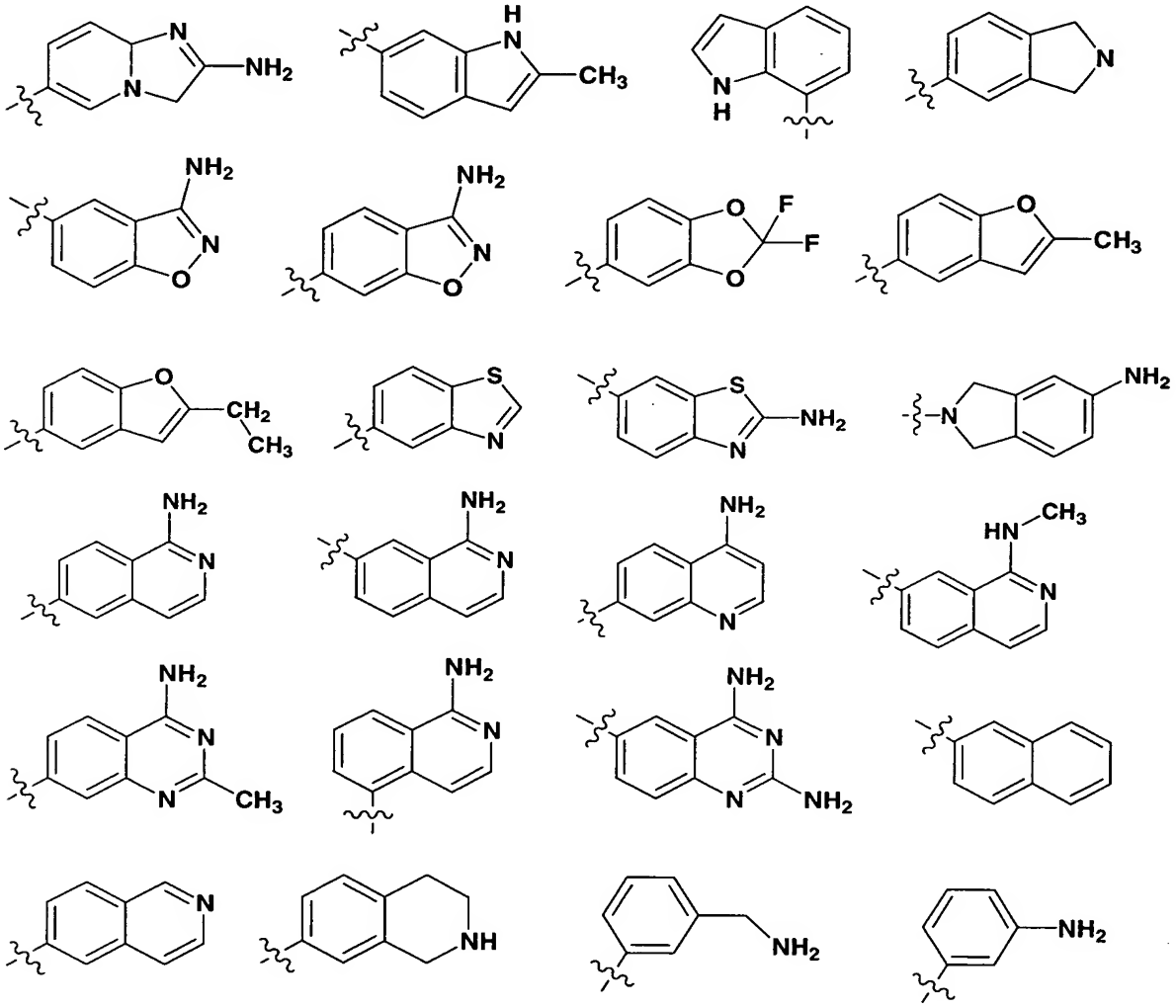

;

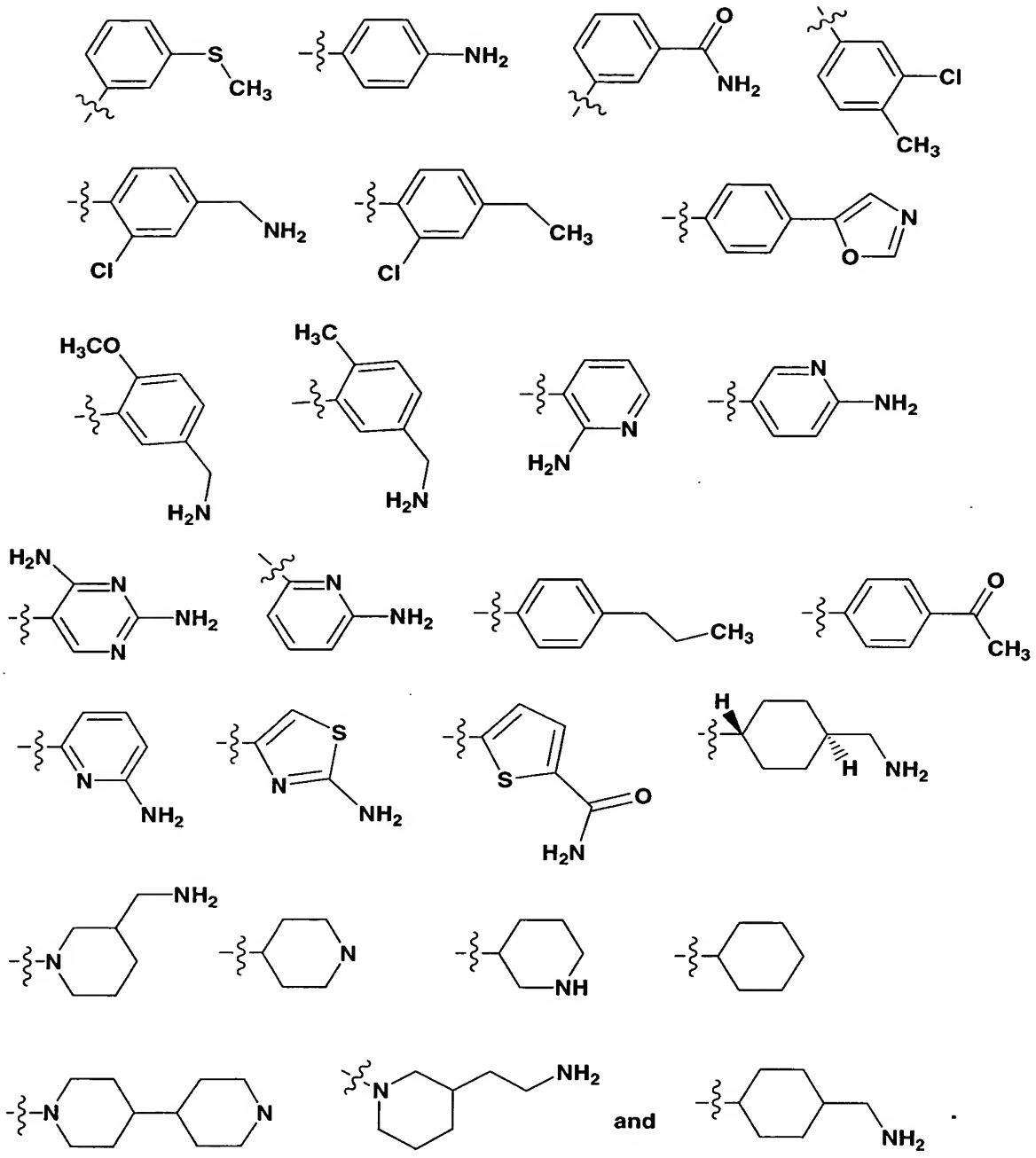
Z_9 is CH or N;

r is 0, 1, or 2; and

s is 0, 1, 2, or 3.

12. A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein Z is selected from:





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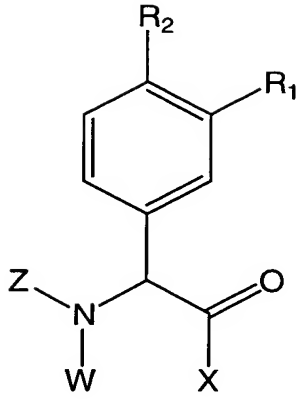
13. A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt thereof, wherein the compound is of formula (Ic):

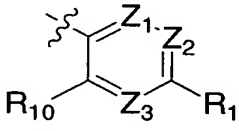


(Ic)

wherein:

X is $-NR_6S(O)_pR_{16}$;

W is hydrogen or $-(CH_2)_q$-H;

Z is a 5-membered heteroaryl group optionally substituted with 1-2 R_9, a five to six membered heterocyclo or cycloalkyl group optionally substituted with 1-2 R_9, a 9 to 10 membered bicyclic aryl or heteroaryl optionally substituted with 1-3 substituents selected from R_9 and/or R_{10}, or  ;

Z_1, Z_2 and Z_3 are independently N or CR_9 and at least one of Z_1, Z_2 and Z_3 is N;

R_1 and R_2 are independently hydrogen, halogen, cyano, nitro, C_{1-10}alkyl, C_{2-10}alkenyl, substituted C_{2-10}alkyl, substituted C_{2-10}alkenyl, $-C(=O)NR_{12}R_{13}$, $-OR_{12}$, $-CO_2R_{12}$, $-C(=O)R_{12}$, $-SR_{12}$, $-S(O)_tR_{15}$, $-NR_{12}R_{13}$, $-NR_{12}SO_2R_{15}$, $-NR_{14}SO_2NR_{12}R_{13}$, $-NR_{12}CO_2R_{13}$, $-NR_{12}C(=O)R_{13}$, $-NR_{14}C(=O)NR_{12}R_{13}$, $-SO_2NR_{12}R_{13}$, aryl, heteroaryl, cycloalkyl, or heterocyclo;

R_6 is hydrogen or together with W is a bond so that X and W join together to form a five to seven membered heterocyclic ring;

R_9, R_{10} and R_{11} are independently selected from hydrogen, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, $-S(O)_uR_{21}$, $-NR_{22}SO_2R_{21}$, $-C(=O)NR_{22}R_{23}$, $-OR_{22}$, $-CO_2R_{22}$, $-C(=O)R_{22}$, $-SR_{22}$, $-NR_{22}R_{23}$, $-NR_{22}CO_2R_{23}$,

$-NR_{22}C(=O)R_{23}$, $-NR_{22}C(=O)NR_{23}R_{24}$, $-SO_2NR_{22}R_{23}$, - $NR_{22}SO_2NR_{23}R_{24}$, $-C(=NR_{22})NR_{23}R_{24}$, five or six membered heterocyclo or heteroaryl, phenyl, and C_{3-7}cycloalkyl, provided that R_{11} is not $-C(=NR_{22})NR_{23}R_{24}$; wherein when R_9, R_{10} or R_{11} is selected from heterocyclo, heteroaryl, phenyl, and C_{3-7}cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C_{1-4}alkyl, C_{1-4}alkoxy, C_{1-4}hydroxyalkyl, C_{1-4}aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4}alkylamino, and/or cyano;

R_{12}, R_{13} , R_{14}, R_{22} R_{23}, and R_{24} are independently selected from hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{15} and R_{21} are independently selected from alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{16} is C_{1-6}alkyl substituted with 0-2 R_{25}, phenyl substituted 0-3 R_{25}, naphthyl substituted with 0-3 R_{25}, a 5-10 membered heteroaryl substituted with 0-3 R_{25} and selected from 1H-pyrazol-4-yl, 1H-pyrazol-4-yl, thiazol-5-yl, 2-naphthyl, quinolin-8-yl, benzo[1,2,5]thiadiazol-4-yl, 2,3-dihydro-benzo[1,4]dioxin-5-yl, or 1H-benzoimidazol-5-yl;

R_{25} at each occurrence is selected from C_{1-4}alkyl, C_{1-4}alkoxy, C_{1-4}hydroxyalkyl, C_{1-4}aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4}alkylamino, and/or cyano;

p is 1 or 2;

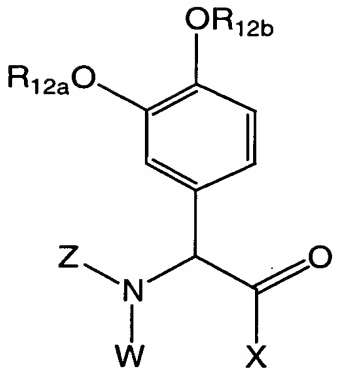
q is 1, 2 or 3;

t is 1 or 2; and

u is 1 or 2;

provided that when Z is pyridyl or pyridazinyl, R_9, R_{10} and/or R_{11} are other than cyano or $-C(=NR_{22})NR_{23}R_{24}$.

14. A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt thereof, wherein the compound is of formula (Id):



(Id)

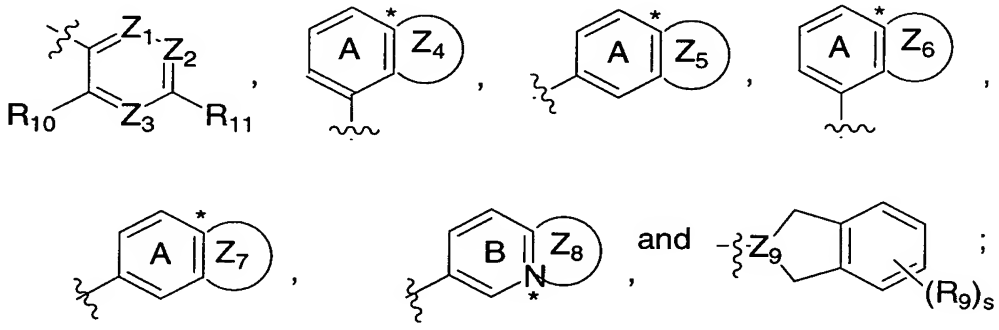
wherein:

X is $-NR_6S(O)_pR_{16}$;

W is hydrogen or $-(CH_2)_p$-W_1;

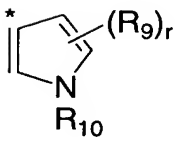
W_1 is hydrogen or may be taken together with R_6 to define a bond so that X and W are joined together to form a five to seven membered heterocyclic ring;

Z is selected from:



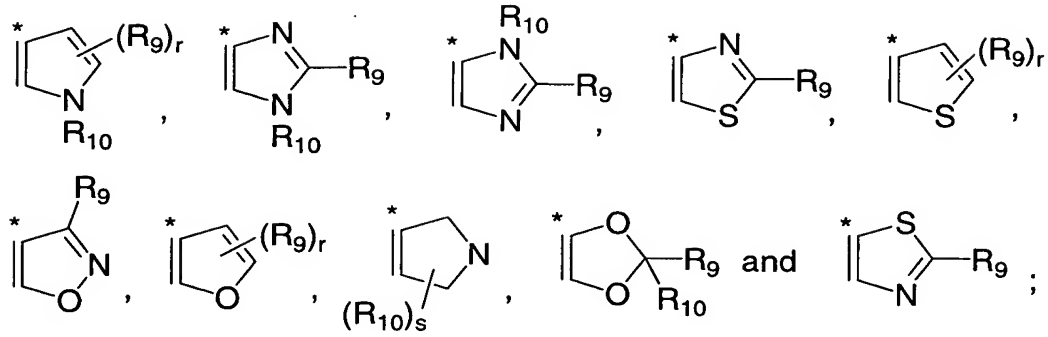
Z_1, Z_2 and Z_3 are independently N or CR_9;

Z_4 is fused to ring A comprising the common carbon atom C* and is

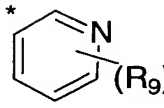


;

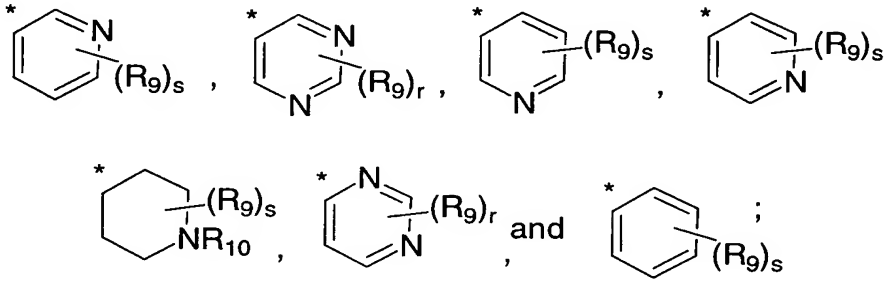
Z_5 is fused to ring A comprising the common carbon atom C* and is selected from:



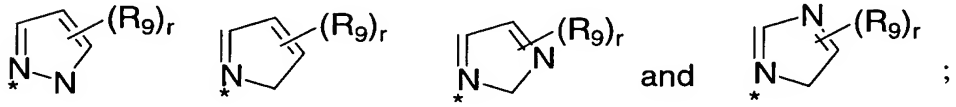
Z_6 is fused to ring A comprising the common carbon atom C* and is



Z_7 is fused to ring A comprising the common carbon atom C* and is selected from:



Z_8 is fused to ring B comprising the common nitrogen atom N* and is selected from



Z_9 is CH or N;

R_6 is hydrogen or together with W_1 is a bond so that X and W join together to form a five to seven membered heterocyclic ring;

R_9, R_{10} and R_{11} are independently selected from hydrogen, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, $-S(O)_uR_{21}$, $-NR_{22}SO_2R_{21}$, $-C(=O)NR_{22}R_{23}$, $-OR_{22}$, $-CO_2R_{22}$, $-C(=O)R_{22}$, $-SR_{22}$, $-NR_{22}R_{23}$, , $-NR_{22}CO_2R_{23}$, $-NR_{22}C(=O)R_{23}$, $-NR_{22}C(=O)NR_{23}R_{24}$, $-SO_2NR_{22}R_{23}$, $-NR_{22}SO_2NR_{23}R_{24}$, $-C(=NR_{22})NR_{23}R_{24}$, five or six membered heterocyclo or heteroaryl, phenyl, and

C_{3-7}cycloalkyl, provided that R_9, R_{10}, and R_{11} are not $-C(=NR_{22})NR_{23}R_{24}$ when W or W_1 is hydrogen; wherein when R_9, R_{10} or R_{11} is independently selected from heterocyclo, heteroaryl, phenyl, and C_{3-7}cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C_{1-4}alkyl, C_{1-4}alkoxy, C_{1-4}hydroxyalkyl, C_{1-4}aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4}alkylamino, and/or cyano;

R_{12}, R_{12a}, R_{12b}, R_{22} R_{23}, and R_{24} are independently selected from hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{16} is C_{1-6}alkyl substituted with 0-2 R_{25}, phenyl substituted 0-3 R_{25}, naphthyl substituted with 0-3 R_{25}, a 5-10 membered heteroaryl substituted with 0-3 R_{25} and selected from 1H-pyrazol-4-yl, 1H-pyrazol-4-yl, thiazol-5-yl, 2-naphthyl, quinolin-8-yl, benzo[1,2,5]thiadiazol-4-yl, 2,3-dihydro-benzo[1,4]dioxin-5-yl, or 1H-benzoimidazol-5-yl;

R_{21} is selected from alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{25} at each occurrence is selected from C_{1-4}alkyl, C_{1-4}alkoxy, C_{1-4}hydroxyalkyl, C_{1-4}aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4}alkylamino, and/or cyano;

p is 1 or 2;

q is 1, 2 or 3;

r is 0, 1, or 2;

s is 0, 1, 2, or 3;

t is 1 or 2; and

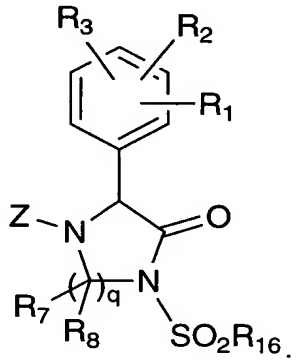
u is 1 or 2;

provided that:

i) when Z is phenyl, pyridyl or pyridazinyl, R_9, R_{10} and/or R_{11} are other than cyano or $-C(=NR_{22})NR_{23}R_{24}$; or

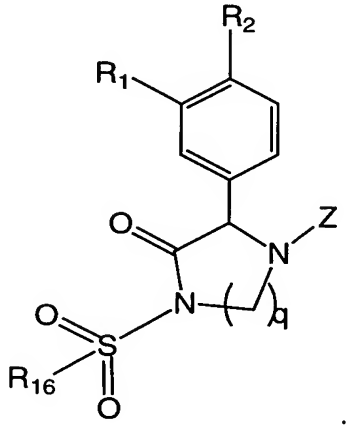
ii) when W is H or C_{1-3}alkyl, Z is other than aryl.

15. A compound of Claim 1, or a stereoisomer or a pharmaceutically-acceptable salt thereof, wherein the compound is of formula (Ie):



(Ie)

16. A compound of Claim 15, or a stereoisomer or a pharmaceutically-acceptable salt thereof, wherein the compound is of formula (If):



(If)

17. A compound according to claim 1, wherein the compound is selected from the group:

N-[2-(3-ethoxy-4-isopropoxy-phenyl)-2-(1,2,3,4-tetrahydro-isoquinolin-7-ylamino)-acetyl]-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-hydroxy-benzenesulfonamide;

4-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetylsulfamoyl]-benzoic acid;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-nitro-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-C-phenyl-methanesulfonamide;

naphthalene-2-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-methoxy-benzenesulfonamide;

4-amino-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

3-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetylsulfamoyl]-benzoic acid;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-methyl-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-fluoro-benzenesulfonamide;

methanesulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

ethane-1-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

propane-2-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

2-methyl-propane-2-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

5-chloro-1,3-dimethyl-1H-pyrazole-4-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-fluoro-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-nitro-benzenesulfonamide;

benzo[1,2,5]thiadiazole-4-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

quinoline-8-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

3-amino-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

2,4-dimethyl-thiazole-5-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

5-methyl-1-phenyl-1H-pyrazole-4-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

2,3-dihydro-benzo[1,4]dioxine-5-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-2-nitro-benzenesulfonamide;

(2-{4-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetylsulfamoyl]-phenyl}-ethyl)-carbamic acid *tert*-butyl ester;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-hydroxymethyl-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-hydroxymethyl-benzenesulfonamide;

5-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetylsulfamoyl]-2-hydroxy-benzoic acid;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-hydroxy-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-2-hydroxy-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-cyano-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-methyl-benzenesulfonamide;

2-amino-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

4-(2-amino-ethyl)-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

4-aminomethyl-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

3-aminomethyl-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

2-amino-1H-benzoimidazole-5-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

N-[2-(3-amino-benzo[d]isoxazol-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

N-[2-(3-amino-1H-indazol-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

N-[2-(2-amino-3H-benzoimidazol-5-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

2-(4-aminoquinazolin-7-ylamino)-2-(3-ethoxy-4-isopropoxyphenyl)-*N*-(phenylsulfonyl)acetamide;

2-(4-aminoquinazolin-7-ylamino)-2-(3-ethoxy-4-isopropoxyphenyl)-*N*-(methylsulfonyl)acetamide;

2-(1-aminoisoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxyphenyl)-*N*-(2,2,2-trifluoroethylsulfonyl)acetamide;

2-(1-aminoisoquinolin-6-ylamino)-*N*-(cyclopropylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)acetamide;

2-(1-aminoisoquinolin-6-ylamino)-*N*-(3- aminosulfonyl -phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)acetamide;

2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)-*N*-(phenylsulfonyl)-acetamide;

N-(3-cyanophenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;

N-(3-aminosulfonyl -phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;

N-(cyclopropylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;

N-(3-carboxamide-phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;

N-(2-aminoethylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;

2-(1-aminoisoquinolin-6-ylamino)-*N*-(3-carboxamide-phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)acetamide;

2-(1-aminoisoquinolin-6-ylamino)-*N*-(3-carboxamide-phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)acetamide;

2-(1-aminoisoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxyphenyl)-N-(methylsulfonyl)acetamide, and

4-[3-benzenesulfonyl-5-(3-ethoxy-4-isopropoxy-phenyl)-4-oxo-imidazolidin-1-yl]-benzamidine; or a stereoisomer or pharmaceutically acceptable salt thereof.

18. A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 1 or a pharmaceutically acceptable salt, or hydrate thereof.

19. A method for treating a thromboembolic disorder, comprising: administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1 or a pharmaceutically acceptable salt, or hydrate thereof.

20. A method according to Claim 19, wherein the thromboembolic disorder is selected from the group consisting of arterial cardiovascular thromboembolic disorders, venous cardiovascular thromboembolic disorders, and thromboembolic disorders in the chambers of the heart.

21. A method according to Claim 19, wherein the thromboembolic disorder is selected from unstable angina, an acute coronary syndrome, first myocardial infarction, recurrent myocardial infarction, ischemic sudden death, transient ischemic attack, stroke, atherosclerosis, peripheral occlusive arterial disease, venous thrombosis, deep vein thrombosis, thrombophlebitis, arterial embolism, coronary arterial thrombosis, cerebral arterial thrombosis, cerebral embolism, kidney embolism, pulmonary embolism, and thrombosis resulting from (a) prosthetic valves or other implants, (b) indwelling catheters, (c) stents, (d) cardiopulmonary bypass, (e) hemodialysis, or (f) other procedures in which blood is exposed to an artificial surface that promotes thrombosis.

22. The pharmaceutical composition of claim 18 further comprising at least one other therapeutic agent selected from one or more of potassium channel openers, calcium channel blockers, sodium hydrogen exchanger inhibitors, antiarrhythmic agents, antiatherosclerotic agents, anticoagulants, antithrombotic agents, antiarrythmic agent, prothrombolytic agents, fibrinogen antagonists, diuretics, antihypertensive agents, ATPase inhibitors, mineralocorticoid receptor antagonists, phospodiesterase inhibitors, antidiabetic agents, anti-inflammatory agents, antioxidants, angiogenesis modulators, antiosteoporosis agents, hormone replacement therapies, hormone receptor modulators, oral contraceptives, antiobesity agents, antidepressants, antianxiety agents, antipsychotic agents, antiproliferative agents, antitumor agents, antiulcer and gastroesophageal reflux disease agents, growth hormone agents and/or growth hormone secretagogues, thyroid mimetics, anti-infective agents, antiviral agents, antibacterial agents, antifungal agents, cholesterol/lipid lowering agents and lipid profile therapies, and agents that mimic ischemic preconditioning and/or myocardial stunning.

23. The pharmaceutical composition of claim 22 wherein the at least one other therapeutic agent is an antihypertensive agent selected from ACE inhibitors, AT-1 receptor antagonists, ET receptor antagonists, dual ET/AII receptor antagonists, and

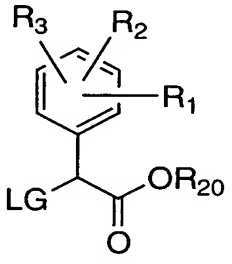
vasopepsidase inhibitors, an antiarrythmic agent selected from IKur inhibitors, or an antithrombotic agent selected from anticoagulants selected from thrombin inhibitors, other factor VIIa inhibitors, factor Xa inhibitors and factor XIa inhibitors, and antiplatelet agents selected from GPIIb/IIIa blockers, $P2Y_1$ and $P2Y_{12}$ antagonists, thromboxane receptor antagonists, and aspirin.

24. A method of treating a Factor VIIa-associated disorder comprising administering an effective amount of at least one compound of Claim 1, or a pharmaceutically-acceptable salt, or hydrate thereof, to a patient in need thereof.

25. The method of claim 24 wherein the Factor VIIa-associated disorder is selected from myocardial infarction, coronary artery disease, non-Q wave MI, congestive heart failure, cardiac arrhythmias, unstable angina, chronic stable angina, Prinzmetal's angina, high blood pressure, intermittent claudication, and peripheral occlusive arterial disease.

26. A process for preparing a compound of Claim 1, which comprises:

(a) contacting a compound of formula (II):



(II)

wherein R_1, R_2, and R_3 are defined as in Claim 1; LG is a leaving group selected from the group: halogen, mesylate, tosylate, benzenesulfonate, and trifluoromethanesulfonate; and R_{20} is C_{1-4}alkyl or benzyl;

with a compound of formula (III):

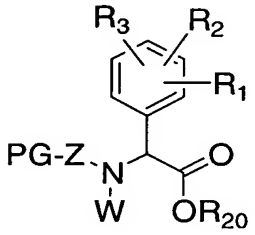
PG-Z-NH-W

(III)

wherein Z and W are defined as in Claim 1; and PG is a protecting group selected from the group: formyl, benzyl, p-methoxybenzyl, nitrobenzyl, 2,4-dimethoxybenzyl, triphenylmethyl, di-p-anisylmethyl, furylmethyl, C_{1-4}alkoxycarbonyl, C_{1-4} allyloxycarbonyl, benzyloxycarbonyl, p-methoxybenzyloxycarbonyl, o-nitrobenzyloxycarbonyl, p-nitrobenzyloxycarbonyl, trimethylsilyl, t-Bu-diMe-silyl, C_{1-4}alkylidene, and benzylidene;

in the presence of a base selected from the group: diisopropylethylamine, triethylamine, potassium carbonate, potassium bicarbonate, and potassium phosphate;

to form a compound of formula (IV):

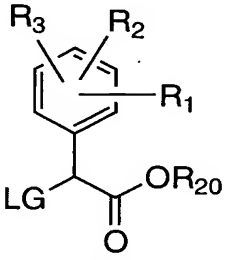


(IV);

and (c) forming a compound of formula (I).

27. A process for preparing a compound of Claim 5, which comprises:

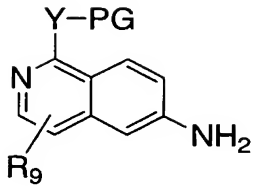
(a) contacting a compound of formula (II):



(II)

wherein R_1, R_2, and R_3 are defined as in Claim 5; LG is a leaving group selected from the group: halogen, mesylate, tosylate, benzenesulfonate, and trifluoromethanesulfonate; and R_{20} is C_{1-4}alkyl or benzyl;

with a compound of formula (IIIa):

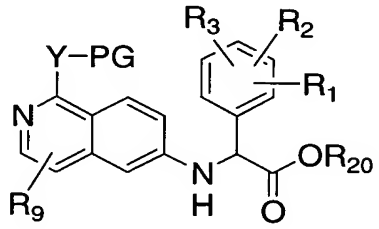


(IIIa)

wherein Y and R_9 are defined as in Claim 5; and PG is a protecting group selected from the group: formyl, benzyl, p-methoxybenzyl, nitrobenzyl, 2,4-dimethoxybenzyl, triphenylmethyl, di-p-anisylmethyl, furylmethyl, C_{1-4}alkoxycarbonyl, C_{1-4} allyloxycarbonyl, benzyloxycarbonyl, p-methoxybenzyloxycarbonyl, o-nitrobenzyloxycarbonyl, p-nitrobenzyloxycarbonyl, trimethylsilyl, t-Bu-diMe-silyl, C_{1-4}alkylidene, and benzylidene;

in the presence of a base selected from the group: diisopropylethylamine, triethylamine, potassium carbonate, potassium bicarbonate, and potassium phosphate;

to form a compound of formula (IVa):

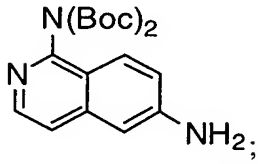


(IVa);

and (c) forming a compound of formula (Ia).

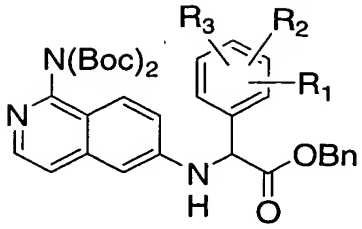
28. A process according to Claim 27, which comprises:

(a) contacting a compound of formula (II), wherein R_{20} is benzyl:



with ; in the presence of diisopropyl ethyl amine;

to form a compound of formula of (IVb):

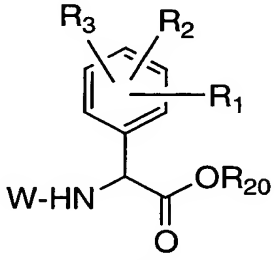


(IVb);

and (c) forming a compound of formula (Ia).

29. A process for preparing a compound of Claim 1, which comprises:

(a) contacting a compound of formula (V):



(V)

wherein R_1, R_2, R_3, and W are defined as in Claim 1; and R_{20} is C_{1-4}alkyl or benzyl;

with a compound of formula (VI):

PG-Z-LG

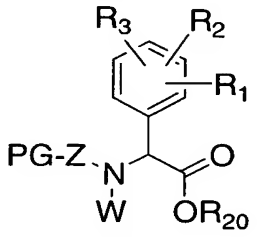
(VI)

wherein Z is defined as in Claim 1; PG is a protecting group selected from the group: formyl, benzyl, p-methoxybenzyl, nitrobenzyl, 2,4-dimethoxybenzyl, triphenylmethyl, di-p-anisylmethyl, furylmethyl, C_{1-4}alkoxycarbonyl, C_{1-4} allyloxycarbonyl, benzyloxycarbonyl, p-methoxybenzyloxycarbonyl, o-nitrobenzyloxycarbonyl, p-nitrobenzyloxycarbonyl, trimethylsilyl, t-Bu-diMe-silyl, C_{1-4}alkylidene, and benzylidene; and LG is a leaving group selected from the group: halogen, mesylate, tosylate, benzenesulfonate, and trifluoromethanesulfonate;

in the presence of a palladium catalyst selected from the group: palladium (II) chloride, palladium (II) acetate, tris(dibenzylideneacetone)dipalladium (0), tetrakis(triphenylphosphine)palladium (0), bis(tri-t-butylphosphine)palladium(0), and allylpalladium chloride dimer; or a copper catalyst selected from the group: copper

(III) triflate, tetrakis(acetonitrile)copper(I), hexafluorophosphate, copper(I) iodide, and copper (II) acetate; a ligand selected from the group: 1,1'-bis(diphenylphosphino)ferrocene, (R or S)-1-(2-diphenylphosphino-1-napthyl)isoquinoline, triphenylphosphine, triphenylarsine, 1,3-bis(2,4,6-trimethylphenyl)imidazolium chloride, tri-t-butylphosphine, tri-2-furylphosphine, (R or S)-2,2'-bis(diphenylphosphino)-1,1'-binapthyl (BINAP), (R or S)-2,2'-bis(di-p-tolylphosphino)-1,1'-binapthyl (Tol-BINAP), and N,N-diethylsalicylamide; and a base selected from potassium carbonate, potassium t-butoxide, tetrabutylammonium hydroxide, triethylamine, diisopropylethylamine, cesium carbonate, cesium acetate, and potassium phosphate;

to form a compound of formula (IV):

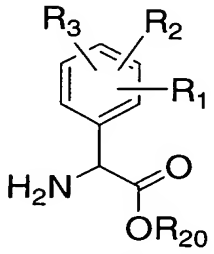


(IV);

and (c) forming a compound of formula (I).

30. A process for preparing a compound of Claim 5, which comprises:

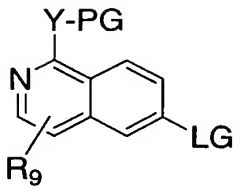
(a) contacting a compound of formula (Va):



(Va)

wherein R_1, R_2, and R_3, are defined as in Claim 5; and R_{20} is C_{1-4}alkyl or benzyl;

with a compound of formula (IIIa):

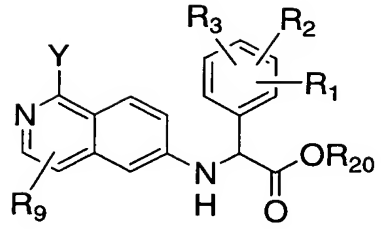


(IIIa)

wherein Y and R_9 are defined as in Claim 5; PG is a protecting group selected from the group: formyl, benzyl, p-methoxybenzyl, nitrobenzyl, 2,4-dimethoxybenzyl, triphenylmethyl, di-p-anisylmethyl, furylmethyl, C_{1-4}alkoxycarbonyl, C_{1-4} allyloxycarbonyl, benzyloxycarbonyl, p-methoxybenzyloxycarbonyl, o-nitrobenzyloxycarbonyl, p-nitrobenzyloxycarbonyl, trimethylsilyl, t-Bu-diMe-silyl, C_{1-4}alkylidene, and benzylidene; and LG is a leaving group selected from the group: halogen, mesylate, tosylate, benzenesulfonate, and trifluoromethanesulfonate;

in the presence of a palladium catalyst selected from the group: palladium (II) chloride, palladium (II) acetate, tris(dibenzylideneacetone)dipalladium (0), tetrakis(triphenylphosphine)palladium (0), bis(tri-t-butylphosphine)palladium(0), and allylpalladium chloride dimer; or a copper catalyst selected from the group: copper (III) triflate, tetrakis(acetonitrile)copper(I), hexafluorophosphate, copper(I) iodide, and copper (II) acetate; a ligand selected from the group: 1,1'-bis(diphenylphosphino)ferrocene, (R or S)-1-(2-diphenylphosphino-1-napthyl)isoquinoline, triphenylphosphine, triphenylarsine, 1,3-bis(2,4,6-trimethylphenyl)imidazolium chloride, tri-t-butylphosphine, tri-2-furylphosphine, (R or S)-2,2'-bis(diphenylphosphino)-1,1'-binapthyl (BINAP), (R or S)-2,2'-bis(di-p-tolylphosphino)-1,1'-binapthyl (Tol-BINAP), and N,N-diethylsalicylamide; and a base selected from potassium carbonate, potassium t-butoxide, tetrabutylammonium hydroxide, triethylamine, diisopropylethylamine, cesium carbonate, cesium acetate, and potassium phosphate;

to form a compound of formula (IV):

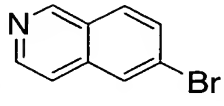


(IVa);

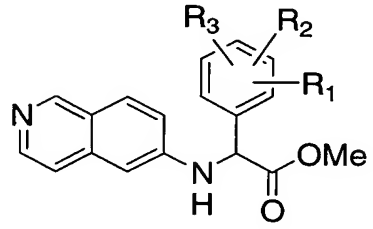
and (c) forming a compound of formula (Ia).

31. A process according to Claim 27, which comprises:

(a) contacting a compound of formula (II), wherein R_{20} is methyl;

with  ; in the presence of diisopropyl ethyl amine;

to form a compound of formula of (IVb):



(IVb);

and (c) forming a compound of formula (Ia).

32. A process according to Claim 26, wherein:

(c) forming a compound of formula (I) by contacting a compound of formula (V) with TMS-$NR_6S(O)_pR_{16}$, wherein R_6, R_{16} and p are defined as in Claim 1;

in the presence of a peptide coupling reagent selected from the group: BOP, BOP-Cl, Py-BOP and Py-BROP; and a base selected from the group: triethylamine, diisopropylethylamine, N-methylmorpholine and sodium bicarbonate;

to form a compound of formula (I).

33. A process according Claim 29, wherein:

(c) forming a compound of formula (I) by contacting a compound of formula (V) with TMS-$NR_6S(O)_pR_{16}$, wherein R_6, R_{16} and p are defined as in Claim 1;

in the presence of a peptide coupling reagent selected from the group: BOP, BOP-Cl, Py-BOP and Py-BROP; and a base selected from the group: triethylamine, diisopropylethylamine, N-methylmorpholine and sodium bicarbonate;

to form a compound of formula (I).

34. A process according Claim 27, wherein:

(c) forming a compound of formula (Ia) by contacting a compound of formula (Va) with TMS-$NR_6S(O)_pR_{16}$, wherein R_6, R_{16} and p are defined as in Claim 1;

in the presence of a peptide coupling reagent selected from the group: BOP, BOP-Cl, Py-BOP and Py-BROP; and a base selected from the group: triethylamine, diisopropylethylamine, N-methylmorpholine and sodium bicarbonate;

to form a compound of formula (Ia).

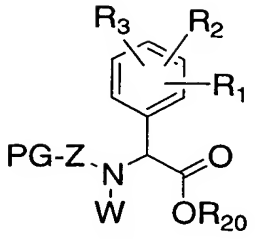
35. A process according Claim 30, wherein:

(c) forming a compound of formula (Ia) by contacting a compound of formula (Va) with TMS-$NR_6S(O)_pR_{16}$, wherein R_6, R_{16} and p are defined as in Claim 1;

in the presence of a peptide coupling reagent selected from the group: BOP, BOP-Cl, Py-BOP and Py-BROP; and a base selected from the group: triethylamine, diisopropylethylamine, N-methylmorpholine and sodium bicarbonate;

to form a compound of formula (Ia).

36. A compound of formula (IV):



(IV)

wherein R_1, R_2, R_3, W and Z are defined as in Claim 1; R_{20} is C_{1-4}alkyl or benzyl; and PG is a protecting group selected from the group: formyl, benzyl, p-methoxybenzyl, nitrobenzyl, 2,4-dimethoxybenzyl, triphenylmethyl, di-p-anisylmethyl, furylmethyl, C_{1-4}alkoxycarbonyl, C_{1-4} allyloxycarbonyl, benzyloxycarbonyl, p-methoxybenzyloxycarbonyl, o-nitrobenzyloxycarbonyl, p-nitrobenzyloxycarbonyl, trimethylsilyl, t-Bu-diMe-silyl, C_{1-4}alkylidene, and benzylidene.